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MISSISSIPPI STATE UNIVERSITY
COLLEGE OF ENGINEERING

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June 8, 1973

Gentlemen:

This letter constitutes the fourth Type I progress report as required by Article II of the NASA contract document NAS 5-21817.

- (a) This report concerns ERTS-A proposal NASA Control No. 25-001-041 having the title: Study of the Application of Remote Sensing Data to Land Use Planning on the Mississippi Gulf Coast.
- (b) The principal investigator is:
Frank Ingels, Ph.D.
Principal Investigator-UN649
Mississippi State University
Mississippi State, Mississippi 39762
- (c) At this time there are no problems impeding the progress of the investigation.
- (d) During this report period (ending May 31, 1973) a meeting was held at ERL-NASA/MTF to decide upon what type computer generated products ERL would deliver to the MSU researchers and a schedule for these deliveries. The following schedule resulted:

ERL-NASA/MTF will supply the following products to the MSU research products to the MSU research team, covering the three Gulf Coast counties; Harrison, Hancock, and Jackson.

25 Paper Prints: Land Use Map 1/250,000 scale

The land usage will be separated into the following classifications:
Water, Marshland, Grassland, Forest, Agriculture, and Urban-Industrial

1 Positive Transparency of land use strips

25 Copies of the score card and description of materials

1 Magnetic map tape

In addition the MSU researchers will receive statistics on land usage for six townships and for the entire 3 county area calculated from minimum size strips.

(E73-10653) STUDY OF THE APPLICATION OF
REMOTE SENSING DATA TO LAND USE PLANNING
ON THE MISSISSIPPI GULF COAST Progress
Report (Mississippi State Univ.) 6 p HC
\$3.00

N73-25349

Unclas
CSCL 08B G3/13 00653

Products made from August 7, 1972 ERTS data will be delivered by June 1.

January 16, 1973 ERTS data will be processed for selected areas to determine seasonal changes. These products will be delivered by July 1, 1973.

May 1973 data will be processed for selected areas to evaluate seasonal and cultural changes, with primary emphasis on cultural changes. These products will be delivered by August 1, 1973.

After determining the schedule for delivery of data products, the MSU researchers made the following schedule for their investigations.

Phase I - May 8, 1973 thru June 1, 1973

MSU personnel will determine which agencies should be approached with the ERTS/ERL data and set up a schedule for visiting these agencies. Also the researchers will compile a list of factors to be analyzed and discussed with these agencies in order to accurately evaluate the ERTS/ERL data.

Phase II - June 1, 1973 thru July 1, 1973

A project meeting will be held to discuss the criteria for evaluating the ERTS/ERL data. Then the researchers will visit the agencies determined during Phase I and acquaint them with the ERTS/ERL products.

Phase III - July 1, 1973 thru August 10, 1973

Visitation with land use related agencies will be completed during this period. A report of visits, recommendations, data analysis, and conclusions will be written by each researcher.

During this report period several ERTS-1 frames were received. These have been analyzed to determine parameters which are significant to our investigation. This analysis will allow us to make statistical statements about the frequency of useful data and other important items at the conclusion of our investigation. A copy of our data analysis sheet is included with this report.

- (e) No significant results have been obtained during this period.
- (f) No papers or publications have been released during this period.
- (g) No recommendations are offered at this time.
- (h) There are no description forms for this period.
- (i) There are no changes in the standing order forms.

- (j) All data for this project is obtained through the ERL-NASA/MTF. There are no request forms filed specifically for this project.
- (k) There is no other information to report at this time.

Sincerely,

A handwritten signature in cursive script, appearing to read "Frank Ingels".

Frank Ingels, Ph.D.
Associate Professor
Department of Electrical Engineering

GULF COAST DATA ANALYSIS SHEET

PICTURE		% TEST SITE		CLOUD COVER		COMMENTS	# OF SETS	70 MM	
DATE	TIME	PICTURE	PASS	PICTURE	SITE				
1032	15555	40 %	40 %	30%	10%	Good over Gulfport - Biloxi area One set went to Frank Miller at Forestry dept.	2	✓	
24 Aug 72									
1050	15553	0 %	0 %	5 %	not covered	About half the scan lines are missing on camera 6	2	✓	
11 Sept 72									
1051	16012	0 %	90 %	1 %	50%	About 1/4 the camera 6 scan lines are missing. Clouds make this pass of very little use to us.	2	✓	
	16014	90 %							20 %
12 Sept 72									
1052	16070	0 %	0 %	0 %	not covered	About 1/2 of camera 6 scan lines are missing.	2	✓	
13 Sept 72									
1070	16070	0 %	0 %	0 %	not covered		2	✓	
	16073	0 %							0 %
1 Oct 72									
1106	16074	0 %	0 %	2 %	not covered		2	✓	
6 Nov 72									

TABLE I

PICTURE		% TEST SITE		CLOUD COVER		COMMENTS	# OF SETS	70 MM
DATE	TIME	PICTURE	PASS	PICTURE	SITE			
1158 28 Dec 72	15561	0 %	46 %	0 %	0 %	Good images - extend west almost to Gulfport.	2	✓
	15564	46 %		0 %			2	✓
1176 15 Jan 73	15562	42 %	42 %	10 %	20 %	Good images - one large cloud over Gulfport - Biloxi area.	2	
1177 16 Jan 73	16020	0 %	96 %	0 %	0 %	Excellent pass!! * we were not shipped camera 6 images for 1177-16023	2	✓
	16023	96 %		0 %			2 *	✓
1194 2 Feb 73	15562	0 %	54 %	20 %	0 %	15562 Covered by scattered clouds 15564 is very good over test site	2	✓
	15564	54 %		5 %			2	✓
1195 3 Feb 73	16020	0 %	91 %	0 %	0 %	A very good pass	2	✓
	16023	91 %		0 %			2	✓
1196 4 Feb 73	16075	0 %	0 %	10 %	not covered		2	✓

PICTURE		% TEST SITE		CLOUD COVER		COMMENTS	# OF SETS	70 MM	
DATE	TIME	PICTURE	PASS	PICTURE	SITE				
1212	15563	0 %	0 %	20 %	not covered		2	✓	
20 Feb 73									
1232	16081	0 %	0 %	5 %	not covered		2	✓	
12 Mar 73									
1248	15565	0 %	0 %	30 %	not covered	* we did not receive camera 6	2	✓*	
28 Mar 73									